

(In reply, refer to: W-3)

25 MAY 1989

James W. Baetge
Executive Director
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

Dear Mr. Baetge:

Thank you for the opportunity to comment on the Draft Revised Workplan for the Hearing Process on the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Although we are disappointed that the Board's recent effort to establish new flow standards was postponed, we commend the Board for developing a revised workplan that will expedite adoption of salinity and temperature standards for the Bay-Delta estuary.

We remain interested in working closely with the State and Regional Boards throughout the hearing process to ensure that State-adopted water quality standards will meet EPA criteria for approval.

Our detailed comments are enclosed. In summary, the final workplan should:

- Clarify how the State Board's process will be made consistent with Federal regulations, which require that standards be based on scientific analyses of protection levels necessary to protect designated beneficial uses;
- Provide more complete definitions of Federal water quality criteria and standards; and
- Clarify whether the Board intends to revise the flow objectives in the existing Delta Plan that were submitted to EPA and have been partially approved as water quality standards.

I look forward to continuing to work closely with the State Board on this important water quality planning process. If you

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DATE	5/23/89	5/23/89	5/24/89			
U.S. EPA CONCURRENCES						

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- 2 -

have any questions, feel free to call me at 415/974-8115 or your staff may call Patrick Wright at 415/974-8286.

Sincerely,

Original Signed by:
Harry Seraydarian

Harry Seraydarian
Director
Water Management Division

Enclosure

cc: Jesse Diaz, Chief, Division of Water Quality, SWRCB
Dave Beringer, Bay/Delta Section, DWQ, SWRCB
Walt Petit, Chief, Division of Water Rights, SWRCB
Steven Ritchie, Executive Officer, CRWQCB-2
William Crooks, Executive Officer, CRWQCB-5

05/23/89	ENCLOSURE	Page: 1
EPA Comments on the Draft Revised Workplan for the Bay/Delta Hearing Process		

1. EPA's Water Quality Standards Review Process

EPA's primary concern with the revised workplan is that the Federal water quality standards review process is not adequately addressed. Because any revision to the water quality standards contained in the Delta Plan or either of the Central Valley or San Francisco Bay Basin Plans will be submitted to EPA for approval, the State Board should ensure that the federal requirements (described below) are explicitly understood by all hearing participants and staff who will make recommendations on proposed standards.

Throughout the revised workplan and draft Pollutant Policy Document, it is stated that, under State law, objectives are developed to provide "reasonable" protection of beneficial uses, with consideration given to the economic costs and social impacts of achieving the level of protection. How this approach will be made consistent with Federal requirements is unclear. Section 303 of the Clean Water Act (CWA) and its implementing regulations at 40 CFR Part 131 require that criteria be based on sound scientific rationale and contain sufficient parameters or constituents to protect the most sensitive designated uses.

As long as the State adopts standards that meet the minimum Federal requirements, EPA will support them. However, standards based on economic or social factors which are less protective than EPA guidance and regulations may not meet these minimum requirements. Consideration of economic or social factors is relevant to designating beneficial uses, but not to establishing criteria or standards that protect those uses. Once established, existing beneficial uses must be fully protected.

The revised workplan, therefore, should clarify EPA's role in the review process and provide for resolution of differences between State and Federal water quality law. In addition, EPA recommends that the Basin Planning section of the workplan be revised to include more complete definitions of Federal water quality criteria and standards, as follows:

A. CWA Definition of Water Quality Criteria

The "legal definition" cited for water quality criteria (p. 7) states that such criteria "do not include the consideration of all other factors necessary to develop

05/23/89	ENCLOSURE	Page: 2
<p align="center">EPA Comments on the Draft Revised Workplan for the Bay/Delta Hearing Process</p>		

water quality standards or objectives." As noted above, this statement is inconsistent with the Federal definition of criteria, since standards can and should be set solely on the basis of scientific analyses of necessary protection levels. The Federal definition should be cited as follows:

Criteria are elements of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use (40 CFR 131.3(b)). Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. For waters with multiple use designations, the criteria shall support the most sensitive use (40 CFR 131.11(a)(1)).

B. CWA Definition of Water Quality Standards

The statement that State and Federal water quality standards are "roughly equivalent" (p. 8) may be misleading for similar reasons. Again, the CWA definition should be cited:

Water quality standards are provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act (40 CFR 131.3(i)).

2. Minimum Requirements for Water Quality Standards

The workplan should list the elements that must be included in water quality standards submitted to EPA for review (40 CFR 131.6):

- (a) Use designations consistent with the provisions of sections 101(a)(2) and 303(c)(2) of the Act.
- (b) Methods used and analyses conducted to support water quality standards revisions.
- (c) Water quality criteria sufficient to protect the designated uses.
- (d) An antidegradation policy consistent with section 131.12.

05/23/89	ENCLOSURE	Page: 3
EPA Comments on the Draft Revised Workplan for the Bay/Delta Hearing Process		

(e) Certification by the State Attorney General or other appropriate legal authority within the State that the water quality standards were duly adopted pursuant to State law.

(f) General information which will aid the Agency in determining the adequacy of the scientific basis of the standards which do not include the uses specified in section 101(a)(2) of the Act as well as information on general policies applicable to State standards which may affect their application and implementation.

3. Existing Flow Objectives

The workplan also should clarify how the Board intends to fulfill the outstanding conditions in EPA's approval of the Delta Plan and State Board Resolution 80-18. As you know, the Board committed to additional studies and revisions of the flow objectives in the 1978 Delta Plan. It is unclear from the workplan, however, whether the Board will seek to retain, revise, or delete the current flow objectives that were submitted to EPA and have been partially approved as water quality standards.

4. EPA's Role

Finally, EPA is pleased that the Board has established a process that clearly segregates the water quality standards process from the water rights process. As we have stated previously, EPA's role in the hearing process will be limited to reviewing only those activities that can be considered part of the water quality planning and standards process.

6 JUL 1989

Mr. W. Don Maughan
Chairman
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

Dear Mr. Maughan:

I am writing to express my personal interest in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Standards Proceedings. I understand that the Draft Revised Workplan for the Proceedings is scheduled to be finalized later this month.

While I commend the Board's revisions to the Draft Workplan in response to EPA's comments of May 25, 1989, I remain concerned about how the State process will be consistent with Federal regulations. I would like to meet with you to discuss the Bay/Delta proceedings, and our mutual concerns for protecting the Bay/Delta system.

Sincerely,

Daniel W. McGovern
Regional Administrator

1989
17 OCT. 1989

Walt Pettit
Chief, Division of Water Rights
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801-0100

Dear Mr. Pettit:

The State Board's FY-87 and FY-88 §106 grant workplan included a commitment to resolve the outstanding conditions and understandings of EPA's water quality standards approvals, including EPA's 1980 approval of the Delta Plan.

I understand that your staff had been reviewing the Delta Plan conditions and preparing written responses to EPA (see enclosure). I would appreciate your sending a summary of the status of those conditions. Should you have any questions, please call me or have your staff contact Patrick Wright at (415) 974-0254.

Sincerely,

Catherine Kuhlman, Chief
Water Quality Branch

Enclosure

SYMBOL	W-3-1	W3				
SURNAME	Thurman	W3				
DATE	10/17/89	10/17/89				
U.S. EPA CONCURRENCES						

OFFICIAL FILE COPY

Memorandum

To : Dave Beringer, Chief
Bay/Delta Section
Division of Water Rights

Date : NOV 09 1987

ORIGINAL SIGNED BY

Edward C. Anton, Chief
Regulatory Branch
Division of Water Quality

From : STATE WATER RESOURCES CONTROL BOARD

Subject: UNRESOLVED EPA CONDITIONS TO DELTA PLAN APPROVAL

Attached is a listing of "Unresolved EPA Conditions/ Interpretations/ Understandings to Water Quality Standard Approvals and Triennial Reviews" that pertain to the Delta Plan. The Federal 106 Workplan (1987-88) calls for us to work to clear these outstanding issues as soon as it is reasonably possible. The Division of Water Quality is attempting to coordinate resolution of all the remaining issues. You need to review the listed conditions and furnish appropriate written responses directly to EPA. Also, could you please provide me with a copy of your response. Your response should be addressed to:

Catherine Kuhlman
Chief, California Section
Water Quality Planning and Standards Branch
Water Management Division
U. S. Environmental Protection Agency, Region 9
215 Fremont Street
San Francisco, CA 94105

If the condition has been resolved, indicate how and when. If work is underway or anticipated, so state and furnish an explanation as to what and the time frame. If, in your opinion, the issue is no longer valid or appropriate, provide your rationale. Should you have questions regarding these conditions or require any further information or clarification, please contact Ms. Kuhlman at (415) 974-8285.

Attachment

cc: John Norton, DWQ
Catherine Kuhlman, EPA ✓

UNRESOLVED EPA CONDITIONS/INTERPRETATIONS/
UNDERSTANDINGS TO WATER QUALITY STANDARD
APPROVALS AND TRIENNIAL REVIEWS

DELTA PLAN

1. If it is shown that there is a measurable adverse effect on striped bass spawning, then a complete review of the Striped Bass Spawning Standard Relaxation Provision (at the Antioch Waterworks intake when project deficiencies are imposed) (Table VI-1, page VI-31) shall commence immediately. Similarly, if any change in Suisun Marsh Chipps Island standards is proposed, as part of that standards amendment process, a review and revision of the Relaxation Provision shall commence.
2. If there is a measurable decrease in the Striped Bass Index (SBI) below that predicted, the SWRCB shall commence immediate actions to review and revise the Delta Plan standards such that "without project" levels of protection are attained. It is our understanding that an average SBI of 79 represents "without project" protection.
3. Through State Water Resources Control Board Resolution No. 80-18, "Adoption of a Schedule of Hearings and Actions to Resolve Outstanding Issues Related to the Bay-Delta Watershed," adopted by the Board on April 17, 1980, the Board has committed itself to review water quality issues, to develop additional water quality standards, and to adopt the developed standards. The following list of standards needs is included in work covered by Resolution No. 80-18 and shall be completed as scheduled in the Resolution:
 - a. In its review of standards, the Board shall evaluate information developed on:
 - 1) water treatment costs for industrial processes and municipal uses;
 - 2) reclamation potential of wastewater;
 - 3) potential for crop decrement to salt sensitive tree crops and sprinkler irrigated ornamental shrubs for municipal and industrial users from the western delta; and
 - 4) additional standards as appropriate to protect those uses.

- b. The State has studies underway to determine the water quality needed to protect agriculture during the portion of the year between August 16 and March 30. These studies are scheduled to be completed by 1982. Additional standards to protect this beneficial use shall be developed.
- c. The State shall evaluate the ongoing negotiations between the State Department of Water Resources, U.S. Bureau of Reclamation, and the South Delta Water Agency to resolve differences in the determination of effective and acceptable means to protect southern delta agricultural use and develop additional standards to protect this beneficial use, as appropriate.
- d. The State shall ensure that necessary studies are performed to provide a basis for additional standards which will supplement the protection derived from striped bass survival standards and provide more appropriate protection for other fish species and aquatic life.
- e. The State shall ensure that necessary studies are performed to provide a basis for additional standards which will supplement the protection derived from Suisun Marsh standards and provide more direct protection for aquatic life in marsh channels and open waters.
- f. The State has studies underway to determine the water quality needed to protect beneficial uses of San Francisco Bay. These studies are scheduled to be used in a State Board standards review in 1986. The State shall develop standards based on any early conclusions of these studies as soon as possible. These will include standards that maintain the natural periodic overturn in the South Bay to protect the designated beneficial uses of those waters. In any case, extensive review of Bay salinity standards shall commence no later than 1986.
- g. The State has studies underway to determine the effects of algal productivity in the estuary (including biostimulation) on water quality. These studies shall be used to develop standards to control excessive biostimulation in the estuary as soon as possible. Continued studies and modeling efforts to refine those standards shall be used to update these standards.

4. As part of the triennial review to be submitted to the State Board by August 1981, the State shall evaluate the following to determine what new or additional standards and/or plans of implementation shall be adopted to protect designated beneficial uses.
5. The water quality standards in Cache Slough at the City of Vallejo intake to restore and/or correct any deficiencies in protection of designated beneficial uses that may exist there.
6. Water quality standards to protect drinking water supplies from precursors of trihalomethanes. (e.g., salinity and organic materials).

STATE WATER RESOURCES CONTROL BOARD

THE PAUL R. BONDERSON BUILDING
901 P STREET
SACRAMENTO, CA 95814

Mailing Address:

DIVISION OF WATER RIGHTS
P.O. BOX 2000, Sacramento, CA 95812



(916) 324-5621

December 7, 1989

Ms. Catherine Kuhlman, Chief
Water Quality Branch
U. S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Ms. Kuhlman:

**UNRESOLVED ENVIRONMENTAL PROTECTION AGENCY CONDITIONS TO THE 1978 WATER
QUALITY CONTROL PLAN FOR THE SACRAMENTO/SAN JOAQUIN-DELTA ESTUARY**

In response to your letter dated October 17, 1989, my staff and I have reviewed the enclosed list of unresolved U.S. Environmental Protection Agency (EPA) conditions and understandings to water quality standard approvals that pertain to the State Water Resources Control Board's (State Board) 1978 Water Quality Control Plan for the Sacramento/San Joaquin-Delta Estuary (Delta Plan). One of the studies mentioned on the conditions has been completed (Delta Agriculture, p. 2 no. 3(b)). Other studies mentioned are currently underway. All the conditions mentioned in your letter are issues we are currently considering in our on-going Bay-Delta proceedings. A summary of the status of the various items is enclosed. The numbering corresponds to that used in the 1980 EPA letter.

As you know, the State Board is conducting proceedings to consider revising the standards contained in the existing Delta Plan and in Water Right Decision 1485. In the proceedings (which were started in July, 1987), the State Board is considering requirements including salinity, flow, temperature, and pollutants and the means of implementing such requirements. The proceedings include a triennial review under Section 303(c) of the Federal Clean Water Act of the water quality standards in the Delta Plan. A workplan describing the proceedings, the issues involved, and time schedules has been prepared. Though I know you are familiar with the contents of the workplan, I am sending you a copy as a part of this reply. It is the intent of the State Board to resolve the EPA conditions through the Bay-Delta proceedings. We expect to finish the process in 1992 or 1993.

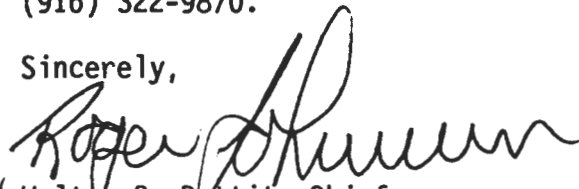
Catherine Kuhlman

-2-

December 7, 1989

If you have any questions concerning this letter, please call me at
(916) 324-5621 or Dave Beringer, Program Manager for the Bay-Delta Section, at
(916) 322-9870.

Sincerely,

A handwritten signature in cursive script, appearing to read "Walter G. Pettit".

to/ Walter G. Pettit, Chief
Division of Water Rights

Enclosure

SUMMARY OF THE STATUS OF EPA CONDITIONS TO THE 1978 WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO/SAN JOAQUIN-DELTA ESTUARY*

1. A review of the Striped Bass Spawning Standard Relaxation Provision is currently underway. Draft recommendations will be included in the draft Salinity Control Plan (Plan) due out for public review by mid to late December, 1989. A Final Plan is expected by July, 1990. The 1978 Delta Plan does not contain a Suisun Marsh Standard Relaxation Provision.
2. Because of decreases in the Striped Bass Index below predicted values, striped bass Delta Plan standards are currently being reviewed. The review includes "without project" levels of protection. Time frames are the same as in No. 1, above.
 - 3.a.1. Water treatment costs for municipal and industrial processes is currently being reviewed, and the information will be included in the draft Plan. The Municipal and Industrial Workgroup is assisting the State Board in obtaining information on this issue.
 - 3.a.2. A State Board sponsored Workgroup dealing with urban reclamation issues is developing information on reclamation potential of wastewater. The information will be considered during the Water Right Phase of this proceeding. A final water right document is expected in 1992 or 1993.
 - 3.a.3&4 This review is being conducted through the Delta Plan. The Delta Plan schedule is shown in No. 1, above.
 - 3.b. This study (Delta Corn Study) has been completed. Results are provided in the November 1988 draft Salinity Control Plan. Additional data on the effective needs of leaching is being developed through new studies. These studies will be completed prior to the water right phase of the Bay-Delta proceeding.
 - 3.c. Negotiations between the Department of Water Resources, the Bureau of Reclamation and the South Delta Water Agency are still ongoing. Physical facilities are being evaluated to resolve the outstanding problems. This issue will be addressed during the Scoping Phase of this proceeding. The Scoping Phase is scheduled to begin around October, 1990.
 - 3.d&e. Studies described in these sections (for striped bass, other fish species and aquatic life and Suisun Marsh) will be addressed in the draft Plan's Program of Implementation, scheduled for public review during the first half of 1990.
 - 3.f. Evidence presented during Phase I of these proceedings was inconclusive regarding the types and levels of protection in terms of flow and salinity requirements needed for protection of beneficial uses of San Francisco Bay, including South Bay. The issue of flow protection will be brought up again during the Scoping and Water

Right phases of this proceeding. The Scoping Phase is scheduled for October, 1990. A salinity objective for positioning of the zone of entrapment within the Suisun Bay area will be addressed in the draft Plan due out mid to late December, 1989.

- 3.g. A three year study designed to evaluate possible mechanisms for the onset of phytoplankton blooms in the Delta was inconclusive. Phytoplankton production in Suisun Bay has declined over the last 10 years. Therefore, except for Melosira blooms in the Delta, biostimulation in the Estuary has not been a problem. A salinity objective for positioning the zone of entrapment in Suisun Bay for phytoplankton production will be addressed in the draft Plan.
 4. See Nos. 5&6 below.
 5. Water quality standards in Cache Slough at the City of Vallejo intake were set by Water Right Decision 1485 and are currently in effect. Water Quality standards for Barker Slough for the City of Vallejo's intake are addressed in the draft Plan.
 6. Water quality standards to protect drinking water supplies from precursors of trihalomethanes are discussed in the draft Plan.
- * The numbering corresponds to that used in the EPA attachment titled "Unresolved EPA Conditions/Interpretations/Understandings to Water Quality Standard Approvals and Triennial Reviews."



23 FEB 1990

Mr. W. Don Maughan
Chairman
State Water Resources Control Board
State of California
P.O. Box 100
Sacramento, CA 95801

Dear Mr. Maughan:

Thank you for the opportunity to comment on the draft chapters of the Water Quality Control Plan for the Bay/Delta Estuary. I commend the Board for seeking to obtain the latest available information before preparing a Draft Plan.

In our May 25, 1989 comments on the Draft Revised Workplan for the Proceedings, EPA emphasized that the Water Quality Control Plan should contain standards sufficient to protect the designated uses of the estuary. After reviewing the standards proposed for consideration, I remain concerned that the Plan does not fully satisfy the requirements of the Clean Water Act and EPA regulations.

Before discussing these concerns, I will review EPA's statutory obligations under the Clean Water Act, and our previous actions with respect to the 1978 Delta Plan.

I. Requirements of the Clean Water Act and EPA Regulations

A. Adoption of Standards

The Clean Water Act Amendments of 1972 required each State to adopt "water quality standards," which consist of two components:

- (1) "designated uses" for a waterbody. These uses are analogous to the "beneficial uses" established by the State and Regional Boards.
- (2) "water quality criteria" which protect the most sensitive of the designated uses. These criteria are analogous to the Delta Plan's "objectives."

A State's standards must provide water quality for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water, and must comply with the Act's primary goal of restoring and maintaining the "chemical, physical, and biological integrity of the Nation's waters."

In addition, States must establish an "antidegradation" policy designed to maintain and protect existing uses and water quality, to provide protection for higher quality waters, and to protect outstanding natural resource waters. Existing uses are defined as those uses that were attained in the waterbody on or after November 28, 1975. The antidegradation policy applies to any action that may lower water quality or adversely affect existing uses.

Finally, the Clean Water Act requires each State to review and, if necessary, revise its water quality standards at least once every three years (a "Triennial Review"). Any changes in water quality standards adopted by the State in connection with its Triennial Review must be submitted to EPA for review and approval.

B. EPA Review of Water Quality Standards

After a State submits its new or revised standards, EPA must either formally approve the revisions within 60 days of their submission or formally disapprove the revisions within 90 days of their submission. In order to approve a new or revised standard, EPA must find that the State's water quality criteria are sufficient to protect the State's designated uses. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the most sensitive designated uses.

EPA must disapprove the State's standards if they are not consistent with EPA regulations. If the State does not make the necessary changes within 90 days, EPA must promptly initiate promulgation of a Federal standard that will supersede the submitted State standard.

II. Previous EPA Involvement in Delta Water Quality Planning

In 1978, the Board adopted and submitted to EPA a Water Quality Control Plan (the Delta Plan) containing a comprehensive set of water quality standards to protect the designated beneficial uses of the Sacramento-San Joaquin Delta. The Delta Plan established water quality standards for three categories of beneficial uses: municipal and industrial, agriculture, and fish and wildlife.

A key set of standards to protect fish and wildlife uses were the striped bass spawning and survival standards, which were established to provide minimum salinity and flow conditions to protect the fishery at levels that would have existed in the absence of the State and Federal Water Projects. The striped bass survival standard was based on a statistical correlation between Delta outflow, Delta diversions, and the Striped Bass Index (SBI), a measure of abundance levels of young striped bass. The Plan emphasized striped bass protection because of its commercial importance and the relative abundance of information on the fishery, but also indicated that it considered the striped bass standards to be a surrogate for protection of other species.

EPA approved the Delta Plan in 1980. At that time, however, EPA was concerned that the Delta Plan standards would not provide adequate protection of striped bass and the estuary's fishery resources. EPA therefore conditioned its approval upon a set of "interpretations" of the standards, including commitments by the State to immediately review and revise the Delta Plan standards if there were measurable adverse impacts on spawning, or if necessary to attain "without project" levels of protection. The State Board concurred with these interpretations in its letter dated November 21, 1980.

In the years since the Delta Plan was adopted, these standards have not accomplished the intended goal of maintaining the Striped Bass Index at a long term average of 79, the Plan's estimate of "without project" levels. During this period, the actual Striped Bass Index averaged about 22, and in 1988 and 1989 reached all-time lows of 4.6 and 5.1.

EPA has expressed its concern to the Board about the need for the standards to adequately protect the fishery resources. Throughout the State's first and second triennial reviews ending in 1981 and 1985, EPA urged the Board to review and revise the Delta Plan in accordance with EPA's 1980 approval letter. At the conclusion of each triennial review, however, the Board made no changes.

Following the State's second triennial review, when the State resubmitted its water quality standards, EPA on June 29, 1987 sent a letter to the Board stating that EPA could no longer approve the striped bass survival standards or the relaxation provision of the spawning standard because these standards did not adequately protect the designated beneficial uses. EPA recognized, however, that the State Board had initiated new hearings to revise the Delta Plan standards. In a letter to EPA on June 23, 1986, the Board had acknowledged that the current standards are not adequate to protect the fisheries, but proposed a coordinated effort by the State and Regional Boards to assure that water quality standards would be established to fully protect the designated beneficial uses. EPA therefore indicated in its June 29, 1987 letter that it would approve or disapprove the revised standards following the hearing process and the State's submission of a complete set of revised standards to EPA.

Following the first phase of the hearings, the Board in November 1988 issued a draft Plan that included revised salinity and flow standards to protect the fisheries and other uses. The Board subsequently withdrew that draft Plan, however, and issued the revised workplan that serves as the basis for the Board's current proceedings.

III. EPA's Present Concerns

As suggested above in my summary of EPA's legal obligations, our concerns over the direction of the present proceedings and triennial review involve both the content of the Plan and the timing of the Board's process.

As to content, EPA has expressed concern that the existing Delta Plan standards have failed to adequately protect the Delta's fishery resources. Our continuing concern is that new or revised standards have not been established and submitted to EPA that satisfy the

outstanding conditions of EPA's approval of the 1978 Plan, and that protect the designated beneficial uses of the estuary. As our June 29, 1987 letter indicated, EPA was relying on the present proceedings to satisfy these requirements. The Workplan and draft chapters, however, state that the scope of this Water Quality Control Plan will be limited to addressing the direct effects of salinity and temperature on certain species. Additional measures that may be necessary to restore and maintain "estuarine habitat" and other uses designated for protection in the State's water quality standards will be addressed in subsequent phases of the proceedings. EPA will not be able to consider approval of the State's water quality standards until a comprehensive set of standards is submitted in this and in subsequent phases of the proceedings.

In addition, as explained in full in our May 25, 1989 comments on the Workplan, we are concerned about the scientific basis of the standards that are included in the revised Plan. In many instances, it is unclear whether the differences within the sets of alternative standards proposed for consideration arise from conflicting scientific evidence or from the potential economic impacts of meeting a fully protective alternative. As noted above, to satisfy Clean Water Act requirements, water quality standards must be sufficient to fully protect existing and designated uses and must be based on an acceptable scientific evaluation. The draft Plan should clearly specify the scientific rationale for each preferred alternative.

As to the timing of the process, EPA and the State are both operating under a Congressional mandate to perform a triennial review of the standards. The Clean Water Act places primary responsibility on the State to develop and revise water quality standards, and for that reason EPA has deferred to the State's ongoing planning process as the most expeditious way to deal with our concerns. Nevertheless, the Act does not envision an open-ended process; at some point EPA must take a more active role to ensure adoption of water quality standards pursuant to the statutory mandate and time schedules set forth in the Act.

In closing, I am pleased that the Board has made a commitment to protect the designated uses of the estuary in accordance with the Clean Water Act, and I hope these comments have clarified EPA's concerns. Should you have any further questions, please contact me, or have your staff contact Patrick Wright at 415/705-2181. We look forward to working with you and the Board as you complete the present triennial review.

Sincerely,

A handwritten signature in dark ink, appearing to read "Daniel W. McGovern". The signature is fluid and cursive, with the first name "Daniel" and last name "McGovern" being the most prominent parts.

Daniel W. McGovern
Regional Administrator

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105

Carla M. Bard, Chairwoman
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

28 AUG 1980

Dear Ms. Bard:

We have reviewed California's water quality standards for the Sacramento-San Joaquin Delta and Suisun Marsh as contained in the Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh (Delta Plan) adopted by the State Water Resources Control Board on August 16, 1978, by means of Resolution No. 78-43. Also, we have reviewed various supporting materials including the January 25, 1979 transmittal of the Delta Plan and the February 7, 1980 transmittal of additional information to supplement the Board's 1979 transmittal.

I am pleased to inform you that I am approving California's Delta Plan as standards for these waters pursuant to Section 303(c) of the Clean Water Act. This action is based upon my determination that these water quality standards are consistent with the protection of the public health and welfare and the purposes of the Clean Water Act.

I commend the State Water Resources Control Board for its cooperation in working with the Environmental Protection Agency in developing and adopting these revised standards. With this approval, the current Federally approved water quality standards for the San Francisco Bay Basin (2) and the Sacramento-San Joaquin Delta Basin (5B) are, in addition to the Delta Plan, the following State Water Resources Control Board documents:

Sacramento-San Joaquin Delta Basin (5B)

"Water Quality Control Plan Report, Sacramento River Basin (5A), Sacramento-San Joaquin Delta Basin (5B), San Joaquin Basin (5C), Volume I", August 21, 1975, as amended, Chapters 2 and 4 ("Basin 5B Plan")

"Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California", May 18, 1972, as amended

State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California", October 1968

"Water Quality Control Policy for the Enclosed Bays and Estuaries of California," May 1974

San Francisco Bay Basin (2)

These State Water Resources Control Board documents also apply in the San Francisco Bay Basin with the exception that the "Basin 5B Plan" should be replaced by the following documents:

"Water Quality Control Plan, San Francisco Bay Basin (2), Part I", April 17, 1975, as amended, Chapters 2 and 4 ("Basin 2 Plan")


"Water Quality Control Plan for Ocean Waters of California", January 19, 1978, as amended (Ocean Plan)

The Delta Plan supersedes Figure 4-1 and the Delta salinity standards of Table 4-2, both contained in the Basin 5B Plan. Also, the Delta Plan supersedes the Chipps Island and Suisun Marsh salinity standards of the Basin 2 Plan.

In approving the Delta Plan water quality standards, it is my assumption that the interpretations stated in Enclosure 1 and the schedules for additional standards development set forth in Enclosure 2 will be followed by the Board in the development and refinement of Delta standards. To assure that no misunderstanding may occur, please confirm to me within a month of the date of this letter that these interpretations and schedules conform with the State's views. These interpretations and schedules are not intended to alter any of the conditions, interpretations or schedules of water quality standards development that are outstanding from the letters of approval for any of the previously approved standards in other policies and plans that apply to these waters.

In these continuing efforts toward developing water quality standards, it will be our pleasure to continue to work together with the State to protect the quality of California's waters.

Sincerely yours,


Paul De Falco, Jr.
Regional Administrator

Enclosures

ENVIRONMENTAL PROTECTION AGENCY
July 1980

EPA INTERPRETATIONS OF WATER QUALITY STANDARDS
SACRAMENTO-SAN JOAQUIN DELTA and SUISUN MARSH
(DELTA PLAN)

1. If two numerical values in the water quality standards conflict, the more stringent value will prevail.
2. If it is shown that there is a measurable adverse effect on striped bass spawning*, then a complete review of the Striped Bass Spawning Standard Relaxation Provision (at the Antioch Waterworks Intake when project deficiencies are imposed) (Table VI-1, page VI-31) shall commence immediately. Similarly, if any change in Suisun Marsh Chipps Island standards is proposed, as part of that standards amendment process, a review and revision of the Relaxation Provision shall commence.
3. If there is a measurable decrease** in the Striped Bass Index (SBI) below that predicted, the SWRCB shall commence immediate actions to review and revise the Delta Plan standards such that "without project" levels of protection are attained. It is our understanding that an average SBI of 79 represents "without project" protection.

* "A measurable adverse effect on striped bass spawning" means the following: the Striped Bass Index (SBI) for the individual year is decreased by more than 3 standard deviations from that which would otherwise be predicted using the relationships shown on Figures III-27 and III-28 of the Final EIR for Delta Plan adopted August, 1978.

** Measurable decrease means either:

- (1) three consecutive years where the SBI is decreased by more than one standard deviation below that which would otherwise be predicted for each year using the relationships shown in Figures III-27 and III-28 of the Final EIR of the Delta Plan adopted August, 1978; or
- (2) six consecutive years where the SBI is below that predicted for each year, using the above relationships.

ENVIRONMENTAL PROTECTION AGENCY
July 1980

ADDITIONAL WATER QUALITY STANDARDS DEVELOPMENT
SACRAMENTO-SAN JOAQUIN DELTA AND SUISUN MARSH
(DELTA PLAN)

As a part of the water quality standards revision process pursuant to section 35.1550, the State shall develop additional water quality standards specified below and shall hold public hearings and shall adopt revisions to water quality standards as appropriate.

1. Through State Water Resources Control Board Resolution No. 80-18, "Adoption of a Schedule of Hearings and Actions to Resolve Outstanding Issues Related to the Bay-Delta Watershed," adopted by the Board on April 17, 1980, the Board has committed itself to review water quality issues, to develop additional water quality standards, and to adopt the developed standards. The following list of standards needs is included in work covered by Resolution No. 80-18 and shall be completed as scheduled in the Resolution:
 - a. In its review of standards, the Board shall evaluate information developed on:
 - 1) water treatment costs for industrial processes and municipal uses;
 - 2) reclamation potential of wastewater;
 - 3) potential for crop decrement to salt sensitive tree crops and sprinkler irrigated ornamental shrubs for municipal and industrial users from the western delta; and
 - 4) shall develop additional standards as appropriate to protect those uses.
 - b. The State has studies underway to determine the water quality needed to protect agriculture during the portion of the year between August 16 and March 30. These studies are scheduled to be completed by 1982. Additional standards to protect this beneficial use shall be developed.
 - c. The State shall evaluate the ongoing negotiations between the State Department of Water Resources, Water and Power Resources Service (formerly USBR) and the South Delta Water

Agency to resolve differences in the determination of effective and acceptable means to protect southern delta agricultural use and develop additional standards to protect this beneficial use, as appropriate.

- d. The State shall ensure that necessary studies are performed to provide a basis for additional standards which will supplement the protection derived from striped bass survival standards and provide more appropriate protection for other fish species and aquatic life.
 - e. The State shall ensure that necessary studies are performed to provide a basis for additional standards which will supplement the protection derived from Suisun Marsh standards and provide more direct protection for aquatic life in marsh channels and open waters.
 - f. The State has studies underway to determine the water quality needed to protect beneficial uses of San Francisco Bay. These studies are scheduled to be used in a State Board standards review in 1986. The State shall develop standards based on any early conclusions of these studies as soon as possible. These will include standards that maintain the natural periodic overturn in the South Bay to protect the designated beneficial uses of those waters. In any case extensive review of Bay salinity standards shall commence no later than 1986.
 - g. The State has studies underway to determine the effects of algal productivity in the estuary (including biostimulation) on water quality. These studies shall be used to develop standards to control excessive biostimulation in the estuary as soon as possible. Continued studies and modeling efforts to refine these standards shall be used to update these standards.
2. As part of the triennial review to be submitted to the State Board by August 1981, the State shall evaluate the following to determine what new or additional standards and/or plans of implementation shall be adopted to protect designated beneficial uses.
- a) the water quality standards in Cache Slough at the City of Vallejo Intake to restore and/or correct any deficiencies in protection of designated beneficial uses that may exist there.
 - b) water quality standards to protect drinking water supplies from precursors of trihalomethanes. (e.g., salinity and organic materials).

STATE WATER RESOURCES CONTROL BOARD

P.O. BOX 100, SACRAMENTO, CALIFORNIA 95801

(916) 322-9870

RECEIVED

REGION IX

NOV 21 10 19 AM '80



NOV 21 1980

Ms. Sheila M. Prindiville
Acting Regional Administrator
U. S. Environmental Protection
Agency, Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Ms. Prindiville:

1978 DELTA PLAN

I was most pleased to receive your August 28 letter approving the water quality standards established by the Board's Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh. I am extremely happy EPA agrees that the water quality standards adopted by the Board for the protection of beneficial uses in the Delta and Suisun Marsh meet the stringent requirements for environmental protection established under Federal law.

You asked for Board concurrence with the interpretations and schedules set forth in Enclosures 1 and 2 of your letter. The Board has reviewed these enclosures and concurs with them. The Board has already directed staff to develop standards in the areas of concern to EPA. The schedules established by the Board in Resolution 80-18 to address important Bay-Delta issues will be modified to allow for these additional areas of study. Revision and adoption of appropriate standards will follow the process established by both State and Federal law.

Thank you for your continued cooperation in helping us solve the complex issues facing the State.

Sincerely,



Carla M. Bard
Chairwoman

United States
Environmental Protection
Agency

Regional Administrator
215 Fremont Street
San Francisco CA 94105

Region 9
Arizona, California
Hawaii, Nevada
Pacific Islands



29 JUN 1987

Mr. W. Don Maughan
Chairman
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

Dear Mr. Maughan:

The U.S. Environmental Protection Agency (EPA) has reviewed State Board Resolutions 85-4 and 87-7, and other relevant materials concerning the Second Triennial Review of the Water Quality Control Plan for the Sacramento/San Joaquin Delta and Suisun Marsh (Delta Plan).

Delta water quality is presently governed by four sets of standards: the Delta Plan, the Water Quality Control Plans for the Central Valley and the San Francisco Bay Basins (Basin Plans), and the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Bays and Estuaries Policy). This action concerns only the water quality standards contained in the Delta Plan.

The State Board completed the Delta Plan Second Triennial Review in January of 1985 when it adopted Resolution 85-4, and submitted the results of the review to EPA for approval on June 26, 1985. On September 18, 1985 EPA requested additional information from the Board to support certain findings, and gave the Board the opportunity to either supply this information or to modify the findings made in Resolution 85-4. Since neither the requested information nor these modifications were forthcoming by the time the Board adopted Resolution 87-7 on February 5, 1987 (adopting the workplan for the upcoming Bay-Delta hearings), EPA is taking the following action.

EPA approves the water quality standards contained in the Delta Plan with the exception of the striped bass survival standards and the relaxation provision of the striped bass spawning standard. EPA can not approve these two standards as we believe the standards do not adequately protect the fishery resource. EPA does, however, recognize

that the necessary changes to these standards are difficult to specify. We also note that the State Board has embarked upon a full-scale review of the Delta Plan standards through a public hearing process. It is mandatory that this process result in standards which provide assured protection for the resource. At the termination of the hearing process, and the submission of the State's standards to EPA, EPA will at that time, take an approve or disapprove action.

In regard to the striped bass survival standards, it is important to note that one of the goals of the Delta Plan was to maintain the fishery in the estuary at levels which would have existed in the absence of the State Water Project and the Federal Central Valley Project. The striped bass was chosen by the State in 1978 as the key indicator species to be used in measuring the health of the fishery resource in the estuary. The striped bass index (SBI), was based upon a relationship between flow and young striped bass survival. This relationship was then translated into enforceable water quality standards for flow through the Delta. In order to restore and maintain the fishery at "without project" levels, these standards were established to attain a long term average SBI of 79. This specific target SBI quantitatively defines the success of the Delta flow standards in protecting the fishery. In adopting the Delta Plan, the Board determined that water quality objectives for flow and salinity alone were sufficient to protect the beneficial uses.

However, the striped bass index as measured between 1978 and 1984 was significantly below the number predicted. The validity of the correlation between flow and striped bass survival has become obscured, perhaps because either: 1) the correlation is no longer as strong as it once appeared, and hence the standard is no longer based upon sound scientific rationale; or 2) some other constituent(s) other than flow and salinity may be severely impacting the striped bass fishery. Regardless of which of these may prove to be the case, the continuing decline of the striped bass index clearly indicates the inadequacy of the existing striped bass survival standards, and the need for substantial revisions in the next Delta Water Quality Control Plan. EPA, therefore, cannot approve these standards.

As mentioned, although the cause behind the continuing decline of the striped bass index may not be clear, it is reasonable to presume that there still exists a flow-survival relationship, and that increased freshwater flows may be necessary in order to better protect the survival of young striped bass. It is EPA's position that the State Board should not allow any further incremental diversions of freshwater flows above those that are presently permitted, until the upcoming Bay-Delta water quality standards review and revision process is completed. Additionally, should the State, as a result of the hearings, decide to allow increased diversions out of the estuary, it may do so only after the necessary antidegradation requirements have been satisfied.

As for the relaxation provision of the striped bass spawning standards, we do not at this time take issue with the scientific validity of the spawning standard itself; however, the evidence for allowing a relaxation of the standard is questionable. Page VI-3 of the Delta Plan states "it may be possible to exceed these values for brief periods with little adverse effect on spawning." Since the drought years of 1976-77 when there was a long period of exceedances of adequate salinity conditions for spawning, the striped bass abundance has not recovered to levels predicted, based upon Delta outflow. While the Delta Plan was not in place at that time, EPA believes that these data have shown that the impacts of the relaxation provision were underestimated. The Board's administrative record (Delta Plan and EIR) supporting the relaxation does not provide any scientific evidence that this relaxation provision will not adversely affect spawning of striped bass. We believe that this evidence is mandatory before EPA can approve such a provision. Therefore, at this time the relaxation provision of the striped bass spawning standard is not approvable.

As we find ourselves in the midst of what will be classified as a "critical" year by the State Department of Water Resources, the issue of the relaxation provision is especially relevant. It is EPA's position that the State Board should remove the relaxation provision until such time as its appropriateness can be demonstrated. This would not preclude the adoption of a similar provision in the Water Quality Control Plan that will result from the Bay-Delta hearings that are scheduled to begin in July.

Regarding the upcoming hearings, additional areas which have been addressed in our earlier letters and which must be addressed in the upcoming hearings include the water quality needs of the Southern Delta and San Francisco Bay. Also, the recently enacted Water Quality Act of 1987 contains some new requirements which will have a direct bearing on the upcoming proceedings. Enclosures 1 and 2 contain a list of both outstanding and new issues that must be considered in the 1987-88 Delta hearings. I would recommend an early meeting between our respective staffs to discuss these issues.

EPA realizes the difficulty of establishing standards for a complex system such as the Bay-Delta estuary. Nonetheless, we have an unswerving commitment to maintain the water quality of the estuary. For this reason we have in the past urged the development of standards to provide interim protection of beneficial uses. This action serves as a recognition that, despite these historic efforts by the State, the San Francisco Bay-Delta is not being adequately protected.

We look forward to working with the State Board towards developing water quality standards for the estuary which will be truly protective of the resource, the importance of which cannot be overstated.

Sincerely,

ORIGINAL SIGNED BY:

JUDITH E. AYRES

JUDITH E. AYRES

Regional Administrator

Enclosures

cc: Executive Officer, Central Valley Regional Water
Quality Control Board (w/o enclosures)
Executive Officer, San Francisco Bay Regional Water
Quality Control Board (w/o enclosures)

RA - Reading File
W-1 - Reading File
W-3 - Reading File
W-3 - Official File

W-3 - J. Johnstone, Larry, 06/24/87

ENVIRONMENTAL DEFENSE FUND

Rockridge Market Hall
5655 College Avenue
Oakland, CA 94618
(415) 658-8008
(415) 658-0630 FAX

77
RA [initials]
W-1
July 7, 1989

HAND DELIVERED

Daniel W. McGovern
Regional Administrator
U.S. Environmental Protection Agency
Region 9
215 Fremont Street
San Francisco, California 94105

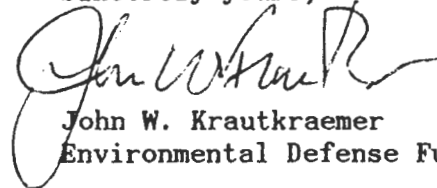
Re: State Water Resources Control Board Bay/Delta
Hearings

Dear Dan:

Enclosed is the short position paper outlining our concerns about the Bay/Delta hearings which you requested at our meeting last week. We would of course welcome the opportunity to discuss more fully any of the issues raised in the memo with you.

Thank you again for meeting with us last week and for giving this issue your consideration.

Sincerely yours,


John W. Krautkraemer
Environmental Defense Fund

for Gregory A. Thomas
Sierra Club Legal Defense Fund

for Karen Garrison
Natural Resources Defense Council

for Alan Ramo
Citizens for a Better Environment

National Headquarters
257 Park Avenue South
New York, NY 10010
(212) 505-2100

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

Enclosures

July 7, 1989

MEMORANDUM

TO: Daniel McGovern, Regional Administrator, U.S. Environmental Protection Agency, Region 9

FROM: John Krautkraemer, Environmental Defense Fund; Greg Thomas, Sierra Club Legal Defense Fund; Karen Garrison, Natural Resources Defense Council; Alan Ramo, Citizens for a Better Environment

SUBJECT: California State Water Resources Control Board Bay/Delta Hearings

BACKGROUND

This memorandum briefly addresses certain concerns that we and other organizations interested in protecting the San Francisco Bay/Sacramento-San Joaquin Delta estuary have about recent developments in the State Water Resources Control Board's ("Board" or "SWRCB") hearing process for San Francisco Bay. In particular, we are concerned about the Board's announced intent to delete consideration of flows (except in limited circumstances) from the water quality phase of its revised hearings and a Board hearing process which we believe will not ensure adequate and timely protection of the estuary's beneficial uses. Because of EPA's statutory responsibility to ensure that the water quality standards adopted by the state comply with federal requirements, we are bringing these concerns to your attention.

The Board in 1978 adopted a Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh ("1978 Plan") which established water quality standards for municipal and industrial, agricultural, and fish and wildlife beneficial uses in the Delta and Suisun Marsh. The 1978 Plan was implemented by the Board through Water Rights Decision 1485, which amended the water right permits of the State Water Project ("SWP") and federal Central Valley Project ("CVP") to require compliance with the 1978 Plan's standards. These standards are often referred to as "D1485 standards".

A key set of standards in the 1978 Plan for protection of Delta fisheries was the striped bass survival standards. The Board focused on striped bass protection because of the importance of the fishery and the relative abundance of information on the species, but also indicated that it considered the striped bass standards to be a surrogate for protection of other species of Delta fish. (1978 Plan at pp., VI-6 to VI-9).

The striped bass survival standards are expressed as freshwater outflow from the Delta to Suisun Bay, measured at Chipps Island. The standards were based on the correlation between outflow and the "striped bass index" ("SBI"), a measure of young striped bass abundance, which existed at that time. The 1978 Plan indicated that the striped bass standards would attain an average SBI of 79. This level of protection was determined to approach "without project conditions", that is the level of fish abundance that would exist in

the absence of the SWP and CVP.

Following adoption of its 1978 standards, the Board submitted the standards to Region 9 for EPA approval pursuant to Section 303(c) of the Clean Water Act. EPA in 1980 approved the standards. However, the striped bass index had taken a precipitous decline in the drought of 1976-77, and EPA had concerns as to whether the standards would indeed provide the promised level of protection for the striped bass fishery. Accordingly, EPA placed important "interpretations" on its approval. In particular, EPA stated:

If there is a measurable decrease in the Striped Bass Index (SBI) below that predicted, the SWRCB shall commence immediate actions to review and revise the Delta Plan standards such that "without project" levels of protection are attained. It is our understanding that an average SBI of 79 represents "without project" protection.

EPA also included an interpretation concerning a provision in the 1978 Plan allowing for the relaxation of separate standards for striped bass spawning (as opposed to survival). This interpretation is also tied to attaining specified SBI levels. The spawning standards are expressed as both salinity and flow standards. (1978 Plan at pp., VI-3 to VI-6). A copy of the 1980 approval letter and interpretations is attached.

In the years since the adoption of the 1978 Plan striped bass populations in the Bay/Delta estuary have remained low. The average SBI over that period of time has been about 25, and last year (1988) was 4.6, the lowest on record. During this period of time, the Board has conducted two triennial reviews of the 1978 Plan standards pursuant to Section 303(c)(1) of the Clean Water Act, but has made no changes.

EPA has expressed increasing concern to the Board about the failure of the standards to attain the indicated level of protection. Finally, in 1987, following the Board's second triennial review, EPA sent a letter to the Board stating that it would not approve the striped bass survival standards or the relaxation provision of the striped bass spawning standards because it believed "the standards do not adequately protect the fishery resource." EPA indicated, however, that it was aware the Board had initiated new hearings to review its Delta standards (as well as to address the need for standards for San Francisco Bay, unaddressed in the 1978 Plan). EPA indicated that "it is mandatory that this process result in standards which provide assured protection for the resource." A copy of EPA's 1987 letter is attached.

STATUS OF SWRCB HEARING PROCESS

The Board in 1987 held some 56 days of quasi-adjudicatory hearings to receive evidence on the need for revised Bay/Delta standards. The Board's announced intent was to use the evidence in these "Phase I" hearings to adopt a draft water quality control plan (which would then be the subject of subsequent "Phase II" hearings). Pursuant to the Board's previously adopted workplan for the hearing process the Board received evidence on salinity,

flows, toxic contaminants, and other parameters affecting water quality in the estuary.

As a result of a 1986 state appeal court decision reviewing the standards in the 1978 Plan and Decision 1485, the Board had broadened the hearings to include all upstream diverters of water from the Bay/Delta system (not just the state and federal water projects) and to include pollutant discharge concerns as well as freshwater diversions. (U.S. v. State Water Resources Control Board 227 Cal. Rptr. 161 (1986) (commonly referred to as the "Racanelli decision")). The court had criticized the Board's process of combining its water quality and water rights functions into a single proceeding, noting that in doing so "the Board compromised its water quality role too narrowly by defining its scope in terms of enforceable water rights." (Id., at p., 180). It is also noteworthy that the court had upheld the power and duty of the Board to protect fish and wildlife in the estuary, and that to our knowledge no party objected to the Board's flow-based standards for fishery protection.

In November 1988, the Board issued a draft "Water Quality Control Plan for Salinity, San Francisco Bay/Sacramento-San Joaquin Delta Estuary" ("1988 Draft Plan"). The 1988 Draft Plan, among other things, called for increased freshwater Delta outflow and reduced Delta pumping during spring months for Delta fishery protection. The proposed flow increases varied by year type, but averaged about 1.5 million acre feet per year. The draft proposed that reductions in water availability for consumptive uses resulting from the increased fishery protection would be made up by shifting diversions to times of the year other than the spring months.

The response of water development and user interests to the 1988 Draft Plan was fast and furious. The scientific basis for increased fishery protection was criticized (despite the fact that the proposed new standards were supported by testimony by both the California Department of Fish and Game and the U.S. Fish and Wildlife Service), and the proposal to make up for reduced spring diversions during other months was said to be unworkable. Water interests also, apparently for the first time, objected to including flow standards in the water quality control plan on the grounds that flows were a water rights concern. Their objection was based in part on a fundamental distortion of the Racanelli decision's admonishment to the Board against combining water quality and water rights proceedings. The court's concerns, which were directed at what it perceived to be an overly limited approach to setting water quality standards, were instead used to argue against flow-based standards.

It should be pointed out that Bay/Delta interests also had criticisms of the 1988 Draft Plan. Among these were the failure to set standards specifically for protection of San Francisco Bay (including the south Bay), the failure to increase flows in critically dry years when fish and wildlife can be most seriously affected, and the failure fully to consider water supply alternatives which could reduce Bay/Delta diversions.

In direct response to the water interests' criticisms, the Board in January 1989 announced that it would withdraw its draft plan and revise the workplan for the hearing process. The recently released draft revised workplan, which the Board will consider for adoption on July 20, would delay final adoption and implementation of Bay/Delta standards well beyond the original deadlines. It would also largely delete consideration of flows from the water quality control plan, including only standards for temperature, certain effects of salinity (which the Board apparently limits to salinity toxicity effects), and possibly THM precursors. Flow standards would be included only if they are the "best term" for a desired salinity objective (an example given includes the outflow standard for striped bass spawning, but apparently not for striped bass survival). As discussed later, this limited approach would omit consideration of important water quality impacts related to flows and salinity intrusion.

Consideration of flows would be deferred until the water rights phase of the hearing process. The Board has also indicated that it will focus on physical facilities to implement water quality standards. This raises the concern that the Board will de-emphasize habitat protection for a broad range of fish and wildlife, which was the apparent intent of the 1988 Draft Plan, and focus on physical modifications to the Delta (screens, widened channels, or perhaps even a peripheral canal around the Delta), as well as hatcheries, to address fish and wildlife concerns.

DISCUSSION OF EPA RESPONSE

The important issues facing EPA in light of the developments discussed above is how to respond both to the delays in the Board hearing process and to the narrowing of the scope of the water quality phase largely to exclude consideration of flow-related water quality concerns. Under the Clean Water Act, EPA has important oversight functions to ensure the states develop adequate water quality standards. (Section 303; 40 CFR sec. 131.1 et seq.). States are required to submit water quality standards to EPA for approval. (Section 303(c)). If EPA determines that a standard is not consistent with the requirements of the Act, it is first to notify the state of the changes needed to meet such requirements, and if the state does not change the standard accordingly, is required to promulgate the standard. (Id.). Moreover, EPA has already notified the state that it expects numerical water quality standards to be adopted for all the waters of the state under Section 303(c) by February 1990. Furthermore, for toxic hotspots like the south Bay, standards are required to be attained by February 1990. (Section 304(1)).

It now appears that adoption of and implementation of new water quality standards will be delayed beyond Clean Water Act deadlines and EPA requirements, and that the standards which are adopted may not protect fish and wildlife and other beneficial uses.

In the case of fishery protection, EPA's 1987 letter, discussed above, is a de facto disapproval of the state's striped bass survival and spawning

standards and in our view triggers the requirements of Section 303(c)(3). Without conceding our legal position, however, we are aware that there are advantages to the approach which EPA has taken so far, which is to allow the Board to develop adequate standards through its ongoing hearing process. However, in light of recent developments, we have serious concerns that the Board process will remedy the deficiencies cited in EPA's letter.

Rather than committing to remedy the inadequate striped bass survival standards, the Board apparently now intends to delete these standards entirely from its water quality control plan. This would violate the Board's legal obligation to adopt water quality standards for protection of the striped bass and other fisheries, including the antidegradation requirements of federal (and state) law. (See 40 CFR sec. 131.12). This policy requires, among other things, that existing instream uses and the level of water quality necessary to protect these uses shall be maintained. "Existing uses" are defined as those uses actually attained in the water body on or after November 28, 1975. (40 CFR sec. 131.3(e)). The policy prohibits any activity which would partially or completely eliminate any existing use. (EPA, Questions & Answers on: Antidegradation, p., 3). Similarly, it generally prohibits the removal of a designated use. (Id.).

The Board and water interests may take the position that flow-based standards are a water rights concern and are outside of EPA's authority under the Clean Water Act. In support of this position, Section 101(g) of the Act is often cited. That section specifies that "the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated, or otherwise impaired by this chapter." Such an argument, however, mischaracterizes EPA's responsibilities. EPA is expressly required to ensure that the water quality standards which the state adopts comply with the minimum requirements of federal law. While the standards that are adopted for the Bay/Delta estuary may have some incidental effect on the overall availability of water for other uses, EPA's express oversight responsibility cannot legitimately be viewed as a water allocation decision and is not proscribed by Section 101(g). (See Riverside Irrigation District v. Andrews, 568 F. Supp. 583 (D. Colo. 1983), aff'd 758 F.2d 508 (10th Cir. 1985)).

Moreover, the argument ignores the close link and interrelationship between flows and water quality in the Bay/Delta estuary. While the Board's draft workplan recognizes this interrelationship to a limited extent, it omits important salinity and water quality concerns related to flow. For example, evidence shows that the location of the so-called "entrapment zone" is important in assuring adequate phytoplankton levels at the base of the food chain in Suisun Bay, and hence is important to the survival of young striped bass which use Suisun Bay as a nursery area. The entrapment zone is an area where food particles and nutrients remain suspended due to the interaction between incoming ocean salt water and outgoing freshwater, and thus is related to the degree of salinity intrusion. In the south Bay, salinity gradients are also important to phytoplankton abundance and there is an important relationship between freshwater flow and the accumulation of toxics in both sediments and biota. In both instances, flows relate directly to the

"chemical, physical [and] biological ... integrity of water" and are a proper concern in setting water quality standards. (See Clean Water Act, section 502(19) [definition of "pollution"]). However, it is our understanding that neither of these factors (which are not intended to be exclusive examples) would be considered by the Board during the water quality phase of the hearing process.

In determining water quality standards for the Bay/Delta estuary, it is important to take a comprehensive look at all factors which affect quality. Deferring the consideration of flows, which the Board proposes to do, will almost surely result in undervaluing the cumulative benefits of increased flows to the Bay/Delta system. Moreover, based on the extensive hearing record developed during the Board's Phase I hearings it is apparent that there are important mechanisms affecting water quality and beneficial uses in the Bay/Delta estuary which cannot be decoupled from flow concerns.

We therefore are of the opinion that EPA should at a minimum strongly voice its concerns to the Board over the deletion of flow standards from the water quality phase of the hearings and the lack of a process which will ensure timely and adequate protection of beneficial uses. In our view, if the Board does delete flow-based standards from its water quality control plan, EPA must require that the Board demonstrate that it has otherwise provided adequate standards to ensure protection of the beneficial use.

We thank you for hearing our concerns. The above discussion is intended to provide a brief overview, and we would of course welcome the opportunity to discuss these issues with you more fully.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105Carla M. Bard, Chairwoman
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

28 AUG 1980

Dear Ms. *Carla Bard*

We have reviewed California's water quality standards for the Sacramento-San Joaquin Delta and Suisun Marsh as contained in the Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh (Delta Plan) adopted by the State Water Resources Control Board on August 16, 1978, by means of Resolution No. 78-43. Also, we have reviewed various supporting materials including the January 25, 1979 transmittal of the Delta Plan and the February 7, 1980 transmittal of additional information to supplement the Board's 1979 transmittal.

I am pleased to inform you that I am approving California's Delta Plan as standards for these waters pursuant to Section 303(c) of the Clean Water Act. This action is based upon my determination that these water quality standards are consistent with the protection of the public health and welfare and the purposes of the Clean Water Act.

I commend the State Water Resources Control Board for its cooperation in working with the Environmental Protection Agency in developing and adopting these revised standards. With this approval, the current Federally approved water quality standards for the San Francisco Bay Basin (2) and the Sacramento-San Joaquin Delta Basin (5B) are, in addition to the Delta Plan, the following State Water Resources Control Board documents:

Sacramento-San Joaquin Delta Basin (5B)

"Water Quality Control Plan Report, Sacramento River Basin (5A), Sacramento-San Joaquin Delta Basin (5B), San Joaquin Basin (5C), Volume I", August 21, 1975, as amended, Chapters 2 and 4 ("Basin 5B Plan")

"Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California", May 18, 1972, as amended

State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California", October 1968

"Water Quality Control Policy for the Enclosed Bays and Estuaries of California," May 1974

San Francisco Bay Basin (2)

These State Water Resources Control Board documents also apply in the San Francisco Bay Basin with the exception that the "Basin 5B Plan" should be replaced by the following documents:

"Water Quality Control Plan, San Francisco Bay Basin (2), Part 1", April 17, 1975, as amended, Chapters 2 and 4 ("Basin 2 Plan")

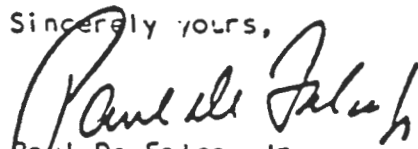
"Water Quality Control Plan for Ocean Waters of California", January 19, 1978, as amended (Ocean Plan)

The Delta Plan supersedes Figure 4-1 and the Delta salinity standards of Table 4-2, both contained in the Basin 5B Plan. Also, the Delta Plan supersedes the Chipps Island and Suisun Marsh salinity standards of the Basin 2 Plan.

In approving the Delta Plan water quality standards, it is my assumption that the interpretations stated in Enclosure 1 and the schedules for additional standards development set forth in Enclosure 2 will be followed by the Board in the development and refinement of Delta standards. To assure that no misunderstanding may occur, please confirm to me within a month of the date of this letter that these interpretations and schedules conform with the State's views. These interpretations and schedules are not intended to alter any of the conditions, interpretations or schedules of water quality standards development that are outstanding from the letters of approval for any of the previously approved standards in other policies and plans that apply to these waters.

In these continuing efforts toward developing water quality standards, it will be our pleasure to continue to work together with the State to protect the quality of California's waters.

Sincerely yours,


Paul De Falco, Jr.
Regional Administrator

Enclosures

Enclosure 1

ENVIRONMENTAL PROTECTION AGENCY
July 1980

EPA INTERPRETATIONS OF WATER QUALITY STANDARDS
SACRAMENTO-SAN JOAQUIN DELTA and SUISUN MARSH
(DELTA PLAN)

1. If two numerical values in the water quality standards conflict, the more stringent value will prevail.
2. If it is shown that there is a measurable adverse effect on striped bass spawning*, then a complete review of the Striped Bass Spawning Standard Relaxation Provision (at the Antioch Waterworks Intake when project deficiencies are imposed) (Table VI-1, page VI-31) shall commence immediately. Similarly, if any change in Suisun Marsh Chipos Island standards is proposed, as part of that standards amendment process, a review and revision of the Relaxation Provision shall commence.
3. If there is a measurable decrease** in the Striped Bass Index (SBI) below that predicted, the SWRCB shall commence immediate actions to review and revise the Delta Plan standards such that "without project" levels of protection are attained. It is our understanding that an average SBI of 79 represents "without project" protection.

* "A measurable adverse effect on striped bass spawning" means the following: the Striped Bass Index (SBI) for the individual year is decreased by more than 3 standard deviations from that which would otherwise be predicted using the relationships shown on Figures III-27 and III-28 of the Final EIR for Delta Plan adopted August, 1978.

** Measurable decrease means either:

- (1) three consecutive years where the SBI is decreased by more than one standard deviation below that which would otherwise be predicted for each year using the relationships shown in Figures III-27 and III-28 of the Final EIR of the Delta Plan adopted August, 1978; or
- (2) six consecutive years where the SBI is below that predicted for each year, using the above relationships.

ENVIRONMENTAL PROTECTION AGENCY
July 1980

ADDITIONAL WATER QUALITY STANDARDS DEVELOPMENT
SACRAMENTO-SAN JOAQUIN DELTA AND SUISUN MARSH
(DELTA PLAN)

As a part of the water quality standards revision process pursuant to section 35.1550, the State shall develop additional water quality standards specified below and shall hold public hearings and shall adopt revisions to water quality standards as appropriate.

1. Through State Water Resources Control Board Resolution No. 80-18, "Adoption of a Schedule of Hearings and Actions to Resolve Outstanding Issues Related to the Bay-Delta Watershed," adopted by the Board on April 17, 1980, the Board has committed itself to review water quality issues, to develop additional water quality standards, and to adopt the developed standards. The following list of standards needs is included in work covered by Resolution No. 80-18 and shall be completed as scheduled in the Resolution:
 - a. In its review of standards, the Board shall evaluate information developed on:
 - 1) water treatment costs for industrial processes and municipal uses;
 - 2) reclamation potential of wastewater;
 - 3) potential for crop decrement to salt sensitive tree crops and sprinkler irrigated ornamental shrubs for municipal and industrial users from the western delta; and
 - 4) shall develop additional standards as appropriate to protect those uses.
 - b. The State has studies underway to determine the water quality needed to protect agriculture during the portion of the year between August 15 and March 30. These studies are scheduled to be completed by 1982. Additional standards to protect this beneficial use shall be developed.
 - c. The State shall evaluate the ongoing negotiations between the State Department of Water Resources, Water and Power Resources Service (formerly USBR) and the South Delta Water

EXHIBIT 2

United States
Environmental Protection
Agency

Regional Administrator
215 Fremont Street
San Francisco CA 94105

Region 9
Arizona, California
Hawaii, Nevada
Pacific Islands



29 JUN 1987

Mr. W. Don Maughan
Chairman
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

Dear Mr. Maughan:

The U.S. Environmental Protection Agency (EPA) has reviewed State Board Resolutions 85-4 and 87-7, and other relevant materials concerning the Second Triennial Review of the Water Quality Control Plan for the Sacramento/San Joaquin Delta and Suisun Marsh (Delta Plan).

Delta water quality is presently governed by four sets of standards: the Delta Plan, the Water Quality Control Plans for the Central Valley and the San Francisco Bay Basins (Basin Plans), and the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Bays and Estuaries Policy). This action concerns only the water quality standards contained in the Delta Plan.

The State Board completed the Delta Plan Second Triennial Review in January of 1985 when it adopted Resolution 85-4, and submitted the results of the review to EPA for approval on June 26, 1985. On September 18, 1985 EPA requested additional information from the Board to support certain findings, and gave the Board the opportunity to either supply this information or to modify the findings made in Resolution 85-4. Since neither the requested information nor these modifications were forthcoming by the time the Board adopted Resolution 87-7 on February 5, 1987 (adopting the workplan for the upcoming Bay-Delta hearings), EPA is taking the following action.

EPA approves the water quality standards contained in the Delta Plan with the exception of the striped bass survival standards and the relaxation provision of the striped bass spawning standard. EPA can not approve these two standards as we believe the standards do not adequately protect the fishery resource. EPA does, however, recognize

Agency to resolve differences in the determination of effective and acceptable means to protect southern delta agricultural use and develop additional standards to protect this beneficial use, as appropriate.

- d. The State shall ensure that necessary studies are performed to provide a basis for additional standards which will supplement the protection derived from striped bass survival standards and provide more appropriate protection for other fish species and aquatic life.
 - e. The State shall ensure that necessary studies are performed to provide a basis for additional standards which will supplement the protection derived from Suisun Marsh standards and provide more direct protection for aquatic life in marsh channels and open waters.
 - f. The State has studies underway to determine the water quality needed to protect beneficial uses of San Francisco Bay. These studies are scheduled to be used in a State Board standards review in 1986. The State shall develop standards based on any early conclusions of these studies as soon as possible. These will include standards that maintain the natural periodic overturn in the South Bay to protect the designated beneficial uses of those waters. In any case extensive review of Bay salinity standards shall commence no later than 1986.
 - g. The State has studies underway to determine the effects of algal productivity in the estuary (including biostimulation) on water quality. These studies shall be used to develop standards to control excessive biostimulation in the estuary as soon as possible. Continued studies and modeling efforts to refine these standards shall be used to update these standards.
2. As part of the triennial review to be submitted to the State Board by August 1981, the State shall evaluate the following to determine what new or additional standards and/or plans of implementation shall be adopted to protect designated beneficial uses.
- a) the water quality standards in Cache Slough at the City of Vallejo Intake to restore and/or correct any deficiencies in protection of designated beneficial uses that may exist there.
 - b) water quality standards to protect drinking water supplies from precursors of trihalomethanes. (e.g., salinity and organic materials).

that the necessary changes to these standards are difficult to specify. We also note that the State Board has embarked upon a full-scale review of the Delta Plan standards through a public hearing process. It is mandatory that this process result in standards which provide assured protection for the resource. At the termination of the hearing process, and the submission of the State's standards to EPA, EPA will at that time, take an approve or disapprove action.

In regard to the striped bass survival standards, it is important to note that one of the goals of the Delta Plan was to maintain the fishery in the estuary at levels which would have existed in the absence of the State Water Project and the Federal Central Valley Project. The striped bass was chosen by the State in 1978 as the key indicator species to be used in measuring the health of the fishery resource in the estuary. The striped bass index (SBI), was based upon a relationship between flow and young striped bass survival. This relationship was then translated into enforceable water quality standards for flow through the Delta. In order to restore and maintain the fishery at "without project" levels, these standards were established to attain a long term average SBI of 79. This specific target SBI quantitatively defines the success of the Delta flow standards in protecting the fishery. In adopting the Delta Plan, the Board determined that water quality objectives for flow and salinity alone were sufficient to protect the beneficial uses.

However, the striped bass index as measured between 1978 and 1984 was significantly below the number predicted. The validity of the correlation between flow and striped bass survival has become obscured, perhaps because either: 1) the correlation is no longer as strong as it once appeared, and hence the standard is no longer based upon sound scientific rationale; or 2) some other constituent(s) other than flow and salinity may be severely impacting the striped bass fishery. Regardless of which of these may prove to be the case, the continuing decline of the striped bass index clearly indicates the inadequacy of the existing striped bass survival standards, and the need for substantial revisions in the next Delta Water Quality Control Plan. EPA, therefore, cannot approve these standards.

As mentioned, although the cause behind the continuing decline of the striped bass index may not be clear, it is reasonable to presume that there still exists a flow-survival relationship, and that increased freshwater flows may be necessary in order to better protect the survival of young striped bass. It is EPA's position that the State Board should not allow any further incremental diversions of freshwater flows above those that are presently permitted, until the upcoming Bay-Delta water quality standards review and revision process is completed. Additionally, should the State, as a result of the hearings, decide to allow increased diversions out of the estuary, it may do so only after the necessary antidegradation requirements have been satisfied.

As for the relaxation provision of the striped bass spawning standards, we do not at this time take issue with the scientific validity of the spawning standard itself; however, the evidence for allowing a relaxation of the standard is questionable. Page VI-3 of the Delta Plan states "it may be possible to exceed these values for brief periods with little adverse effect on spawning." Since the drought years of 1976-77 when there was a long period of exceedances of adequate salinity conditions for spawning, the striped bass abundance has not recovered to levels predicted, based upon Delta outflow. While the Delta Plan was not in place at that time, EPA believes that these data have shown that the impacts of the relaxation provision were underestimated. The Board's administrative record (Delta Plan and EIR) supporting the relaxation does not provide any scientific evidence that this relaxation provision will not adversely affect spawning of striped bass. We believe that this evidence is mandatory before EPA can approve such a provision. Therefore, at this time the relaxation provision of the striped bass spawning standard is not approvable.

As we find ourselves in the midst of what will be classified as a "critical" year by the State Department of Water Resources, the issue of the relaxation provision is especially relevant. It is EPA's position that the State Board should remove the relaxation provision until such time as its appropriateness can be demonstrated. This would not preclude the adoption of a similar provision in the Water Quality Control Plan that will result from the Bay-Delta hearings that are scheduled to begin in July.

Regarding the upcoming hearings, additional areas which have been addressed in our earlier letters and which must be addressed in the upcoming hearings include the water quality needs of the Southern Delta and San Francisco Bay. Also, the recently enacted Water Quality Act of 1987 contains some new requirements which will have a direct bearing on the upcoming proceedings. Enclosures 1 and 2 contain a list of both outstanding and new issues that must be considered in the 1987-88 Delta hearings. I would recommend an early meeting between our respective staffs to discuss these issues.

EPA realizes the difficulty of establishing standards for a complex system such as the Bay-Delta estuary. Nonetheless, we have an unswerving commitment to maintain the water quality of the estuary. For this reason we have in the past urged the development of standards to provide interim protection of beneficial uses. This action serves as a recognition that, despite these historic efforts by the State, the San Francisco Bay-Delta is not being adequately protected.

We look forward to working with the State Board towards developing water quality standards for the estuary which will be truly protective of the resource, the importance of which cannot be overstated.

Sincerely,

ORIGINAL SIGNED BY:

JUDITH E. AYRES

JUDITH E. AYRES

Regional Administrator

Enclosures

cc: Executive Officer, Central Valley Regional Water
Quality Control Board (w/o enclosures)
Executive Officer, San Francisco Bay Regional Water
Quality Control Board (w/o enclosures)

RA - Reading File
W-1 - Reading File
W-3 - Reading File
W-3 - Official File

W-3 - J. Johnstone, Larry, 06/24/87

"EPA'S ROLE IN THE BAY/DELTA PROCESS"

**PRESENTED TO
WATER RESOURCES COMMITTEE MEETING
CALIFORNIA CHAMBER OF COMMERCE
SACRAMENTO, CALIFORNIA**

AUGUST 23, 1989

**DANIEL W. McGOVERN
REGIONAL ADMINISTRATOR
EPA
REGION 9**

Good afternoon. I am pleased to have this opportunity to address what I consider to be one of the most important environmental issues facing California: water quality management in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. I will discuss, generally, EPA's statutory responsibilities with regard to water quality standards, and specifically, how EPA is carrying out its responsibilities in the Bay/Delta proceedings.

Before I begin, I want to emphasize that EPA recognizes that the State Board has primary responsibility for setting water quality standards in California, and we fully appreciate the scientific, social, and political complexity of the Board's task. The Bay/Delta estuary provides the water for a diverse and productive aquatic biological community, the nation's leading agricultural economy, and a large and growing human population. These competing needs present profound policy choices. Moreover, the difficulty of reaching sound regulatory decisions is compounded by the paucity of definitive scientific and technical information.

To further complicate matters, EPA's responsibilities for protecting the water quality of the Bay and Delta are spread over a variety of statutes and programs. EPA's programs applicable to the Bay/Delta include reviewing and approving water quality

standards, issuing permits for discharges under the Clean Water Act, establishing drinking water standards under the Safe Drinking Water Act, and reviewing environmental impact statements of major federal projects under the National Environmental Policy Act. Moreover, the Bay/Delta was accorded special status by EPA when it was designated one of the twelve estuaries of national significance.

Although water quality management activities in the Bay/Delta are influenced by each of these statutes and programs, today I'd like to focus on the water quality standards program established by the Clean Water Act, since that is the origin of EPA's responsibility in the Bay/Delta proceedings. I'll begin by reviewing the basic principles of the Clean Water Act and the respective roles Congress has assigned to EPA and the states, and conclude by discussing EPA's previous involvement and present role in the Bay/Delta proceedings.

Water Quality Standards

Water quality standards are the foundation of this nation's water quality management program.

* Water quality standards establish water quality goals for specific water bodies;

- * Water quality standards also serve as a basis for regulating discharges of municipal and industrial pollutants;

- * They drive the planning and implementation of water-quality based pollution control programs for point and non-point sources; and, finally,

- * Water quality standards provide a measurement of the effectiveness of water pollution control programs in the receiving waters.

The Clean Water Act divides water quality standards into two components: designated uses and water quality criteria. Designated uses are the functions, such as drinking water supplies, recreation, irrigation, or provision of wildlife habitat, that the state has assigned to a given body of water. These designated uses are analogous to the California Delta Plan's "beneficial uses."

Water quality criteria are technical judgments as to the specific water quality requirements necessary to protect those designated uses. Criteria are specific to certain chemicals or substances, and are usually expressed as concentrations. Criteria are often given for microbiological, physical, and chemical characteristics of the water.

The Act assigns primary responsibility for establishing designated uses and related water quality criteria to the state. California did so for the Bay/Delta when it adopted the 1978 Delta Plan.

-- Each state must also establish an "antidegradation" policy to maintain and protect all existing instream water uses and the level of water quality necessary to protect those uses. For this purpose, an existing use is one that was achieved as of 1975. The antidegradation policy establishes a baseline of water quality for assessing activities that may affect the integrity of the nation's waters.

The Clean Water Act requires each state to review and, if necessary, revise its water quality standards at least once every three years - the "triennial review" process. Any changes in water quality standards adopted by the state in connection with the triennial review must be submitted to EPA for review and approval.

The Act assigns primary responsibility for water quality standards to the state. Once the standards are adopted (or revised pursuant to the triennial review) the Act requires EPA to review and approve or disapprove them. In reviewing the water quality standards submitted by a state, EPA must address the following questions:

1. Whether the state has adopted designated uses that are consistent with the requirements of the Act;
2. Whether the state has adopted water quality criteria that protect the most sensitive of these designated uses; and
3. Whether the state's new or revised water quality standards are consistent with the antidegradation policy.

Under the Clean Water Act, EPA can approve a state's water quality standards only if it can answer each of these questions in the affirmative. If it cannot, EPA is required by the Act to disapprove the state's standards. After disapproval, the state is given 90 days by the Act to address EPA's concerns. If the state fails to bring its standards into conformity with the Act, EPA is required to promptly promulgate Federal water quality standards to supersede the state's standards.

I want to emphasize that in requiring EPA to promulgate Federal water quality standards under the described circumstances, Congress did not intend to usurp the state's principal responsibility for this duty. To the contrary, the Clean Water Act and EPA's regulations contemplate that Federal promulgation is an action of last resort to be taken only if a state has failed to adopt water quality standards

approvable by EPA under the Clean Water Act. Furthermore, at any time in the process, if the state does adopt approvable standards, Federal promulgation efforts are to cease. For example, since the enactment of the Clean Water Act, EPA has promulgated final Federal water quality standards in seven different states, most recently in Kentucky in 1987. In all but two instances, the state subsequently adopted adequate standards and the Federal water quality standards were formally withdrawn.

I'm belaboring this explanation of Federal promulgation to emphasize two important points:

First, EPA has a statutory duty to review and approve or, if necessary, disapprove a state's water quality standards. EPA's review is based on clearly enunciated goals in the Clean Water Act, and EPA must, under the statute, begin a Federal promulgation effort promptly if the state's proffered standards do not satisfy the Clean Water Act.

Second, throughout the entire process of review, approval, or disapproval, EPA must honor Congress' intent that the state has primary responsibility for establishing water quality standards.

The Delta Plan Standards and EPA's Involvement

Having briefly outlined EPA's obligations under the Clean Water Act, I will now discuss our involvement in the Bay/Delta process. As most of you know, water quality standards for San Francisco Bay and the Delta are contained in both the Basin Plans adopted by the San Francisco and Central Valley Regional Boards, and in various plans and policies developed by the State Board. In 1978, the State Board chose to develop flow and salinity standards in its 1978 Delta Plan, and delegated development of water quality standards for other pollutants to the respective Regional Boards.

The 1978 Delta Plan established three broad categories of beneficial uses: municipal and industrial, agriculture, and fish and wildlife. In briefly reviewing EPA's actions with respect to the 1978 Plan, I'll focus on the fish and wildlife standards, since those have been the subject of most concern.

EPA's approval of the 1978 Delta Plan was based on the explicit understanding that the water quality standards would be sufficient to protect striped bass, salmon, and other fish and wildlife species at levels that would have existed in the absence of the state and federal water projects. At the time, the relationship between Delta outflow, Delta diversions, and striped bass abundance levels was thought to be fairly predictable. The

expectation was that operation of state and federal projects within certain constraints during the critical life stages of the fisheries would be sufficient to ensure their protection at historic levels. EPA's approval of the Plan, therefore, was conditioned on the state's ability to maintain fish and wildlife species at levels which would have been achieved without the projects.

In the years since the Delta Plan was adopted, however, the fishery resources have dramatically declined. The state-developed indicator of the health of the fisheries, the Striped Bass Index, declined from an average of 63 in 1975 to around 5 in 1988, and 1989. As striped bass levels continued to decline, EPA repeatedly urged the Board to review and revise its water quality standards to protect the fisheries and meet the conditions of EPA's approval of the 1978 Delta Plan. At the conclusion of the state's first and second triennial reviews, however, the state made no changes.

In 1987, therefore, following the state's second triennial review, EPA sent a letter to the State Board expressing concern that revised standards were needed to ensure protection of striped bass and salmon populations in the Bay and Delta. EPA decided against taking immediate action, however, for two reasons: first, EPA recognized that the cause of the decline of

these fisheries was not fully understood. Second, in 1987, the State Board has just begun what was intended to be a three-year effort to adopt a comprehensive new Water Quality Control Plan.

Many of you, I'm sure, participated in the first phase of the current hearings. In 54 days of testimony, an enormous amount of useful but often contradictory evidence was presented to the Board on the water quality needs of the estuary. Given the disparate views presented in the hearings, no one should have been very surprised last November when the Draft Plan failed to generate great enthusiasm on the part of any of the major groups which participated in the hearings. As you know, the State Board subsequently withdrew the Draft Plan.

As I stated at the outset, under the Clean Water Act, the State Board clearly has primary responsibility for setting water quality standards in California. Accordingly, EPA has, up to now, consciously deferred to the State Board and would much prefer to continue to do so. However, for the following reasons, continued deference could become inconsistent with EPA's responsibilities under the Act.

First, by mandating the triennial review process, Congress indicated its intent that states conduct regular reviews of the adequacy of their water quality standards, promptly revising those standards which are shown to be ineffective. The longer the State Board takes to revise its water quality standards, the more difficult it will be to conclude that California is carrying out its responsibilities under the Act in a timely fashion.

Second, environmental groups may sue EPA, asking a United States District Court to order EPA to promulgate federal water quality standards. EPA has been the subject of such suits in other parts of the country, and it is no secret that some California environmental organizations, expressing a growing lack of confidence in the Bay/Delta process, are considering legal action to force EPA to promulgate federal water quality standards.

Finally, and most importantly, the decline in the Bay/Delta fisheries imposes a real-world time limit on EPA's deference to the State Board. It is clear that the fisheries have declined to levels well below the levels contemplated by the 1978 plan. The recent listing of the winter-run chinook salmon as threatened, and last year's record-low Striped Bass Index level indicate that the fisheries may be stressed to their limits. Unless the standards are revised, we face the very real possibility that striped bass, salmon and other species may not be able to recover to sustainable levels.

EPA can justify continuing to defer to the State Board only if we continue to have a good faith belief that the Board's Bay/Delta review will correct the deficiencies we have repeatedly noted in the existing 1978 Delta Plan water quality standards. If the state process is unreasonably delayed or ultimately fails to address EPA's concerns about the fishery resources, we will have no choice but to initiate the federal promulgation process.

EPA is continuing to meet with the State Board at both the staff and Board levels to discuss our concerns. We have received the Board's commitment that it will meet the Clean Water Act's requirements. Because of my respect for and confidence in Don Maughan, I place great reliance on that commitment. We look forward to continued cooperation with the Board as it grapples with its extraordinarily challenging and important responsibilities.

We also look forward to continued interaction with groups such as this. Speaking for myself, I'm new to California's water wars. I know I don't have all the answers. I welcome the opportunity for a genuine dialogue.

Thank you for your attention. My colleague, Harry Seraydarian, and I will now be pleased to respond to any questions or comments you may have.

SOUTHERN CALIFORNIA WATER COMMITTEE, INC.

17752 SKYPARK CIRCLE • SUITE 120
IRVINE, CALIFORNIA 92714 • 714-261-7466

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August 28, 1989

Daniel W. McGovern
Regional Administrator
U.S. Environmental Protection Agency
215 Fremont
San Francisco, CA 94105

Dear Mr. McGovern:

Your presentation to the water resources committee of the California Chamber of Commerce last week was particularly timely. As a Supervisor from Ventura County, Chair of the Southern California Water Committee, and Co-chair of the State Water Conservation Coalition, I have a strong interest in the State Water Resources Control Board/Bay Delta hearings. We agree that their job is a delicate balance of competing interests and we concur that it is important to the process to develop a consensus on the issues.

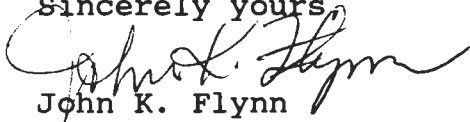
I am particularly pleased that the State Water Conservation Coalition is just such a cooperative effort. The Southern California Water Committee and the San Francisco Bay-Delta based Committee for Water Policy Consensus have joined together in a joint project to bring the public and private leadership diversity of our two committees to focus on conservation and efficient use of water, both urban and agricultural.

As you know, a key element in any future water allocation plan in California will be to place an increasing emphasis on efficient use of our water supplies. The primary goal of the State Water Conservation Coalition is to reach consensus on a range of realistic water savings from a variety of activities that will provide reliable water supplies for all Californians. The information compiled and the conclusions accepted by the Coalition are for the express purposes of offering specific recommendations to the State Water Resources Control Board.

McGovern letter
8/28/89
page two

You indicated your interest in continuing your interaction with others concerned with Southern California's water issues. Both the Southern California Water Committee and the State Water Conservation Coalition welcome that dialogue.

Sincerely yours,



John K. Flynn
Chairman, SCWC

CALIFORNIA WATER RESOURCES ASSOCIATION



1127 11th Street, Suite 602 • Sacramento, CA 95814 • (916) 446-6507

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September 12, 1989

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Mr. Daniel W. McGovern
Regional Administrator, Region IX
Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Dear Mr. McGovern:

On behalf of the California Water Resources Association, thank you for your presentation during our August 23-25 Summer Conference on California's High Stakes Balancing Act: Updating the Bay-Delta Process. Your remarks sparked much discussion, as we have been deeply concerned about the Environmental Protection Agency's (EPA) intended actions regarding many State Water Project and Central Valley Project issues. In addition to the State Water Resources Control Board's Bay-Delta proceedings, such issues include the U. S. Bureau of Reclamation's water marketing program, the federal Central Valley Project contract renewals, and the Los Banos Grandes project.

I'd like to take this opportunity to clarify our concerns with you. We have been concerned that EPA's involvement in these issues would be confrontational rather than constructive. Specifically, we were concerned that EPA might apply its regulatory authority in a manner that would polarize opposing factions and block solutions, rather than encourage negotiation and compromise toward implementing workable solutions. It was most encouraging to hear you indicate support for this consensus process in response to our questions. We agree completely with your assessment that the consensus process produces much more sensitive and effective solutions than can be imposed through the legal and regulatory processes.

We know from experience that negotiation and consensus development works. Water and environmental interests are both beginning to realize that the existing polarized stalemate will not allow resolution of California's fishery and wildlife problems or the water supply problems facing our growing population. We are now sincerely working to find ways to restore fish and wildlife populations to reasonable levels while meeting the reasonable water supply needs of the people in California. The Coordinated Operations Agreement, the Suisun Marsh Preservation Agreement, the Four Pumps Fishery Mitigation Agreement, and work under way by the Five Agency Salmon Task Force and various Bay-Delta workgroups

Mr. Daniel W. McGovern
September 12, 1989
Page 2 of 3

all point to the significant progress we have made and can make in the future through this process.

The consensus process is especially critical to the Board's Bay-Delta proceedings, in which the Board is gathering evidence and preparing to exercise its authority in both the water quality and water right areas. Because of the intense reaction throughout the state to the Board's November 3, 1988, draft of its "Salinity Control Plan," the Board withdrew that draft and has developed a new workplan that incorporates negotiation and consensus development.

While we appreciate your support for negotiated solutions to the difficult issues faced by the Board, we are still concerned about EPA's threat to intervene in the proceedings. While the Clean Water Act gives EPA the authority to review water quality standards issued by the Board, it does not give EPA the right to review State water allocation decisions. We emphasize this fact only to stress the importance of accurately defining the appropriate role for EPA in the Bay-Delta proceedings.


Evidence presented during Phase I of the Bay-Delta proceedings suggests that water quality degradation is not necessarily the cause of the recent decline in the Striped Bass Index, and almost certainly is not the cause of the recent decline in winter-run chinook salmon populations. Consequently, it is likely that some of the fishery protection measures that the Board will adopt will not be related to water quality, and therefore not reviewable by EPA. There is much at stake in the Bay-Delta proceedings, both for fish and wildlife resources and for our growing population. We believe the proceedings will result in supportable protections for the reasonable needs of both interests, but only if the consensus process is allowed to work without confrontational intervention. It is very important to us that EPA participates in the consensus process, and that we are assured that we will be able to work through that process without the threat of EPA intervention, particularly in areas outside of EPA jurisdiction.

Otherwise, we are deeply concerned that EPA's involvement in the Board's Bay-Delta proceedings will lead to confrontation before the Board and possibly before the courts rather than helping to work out balanced solutions to the serious fishery, wildlife and water supply problems we face in California today.

Mr. Daniel W. McGovern
September 12, 1989
Page 3 of 3

Your presentation and comments during our Bay-Delta conference were important to us, and again, we thank you for your participation. We will be conducting workshops and conferences on other important issues throughout the year, and will be asking you for your views and participation.

Sincerely,


Stanley E. Sprague
President

cc: State Water Resources Control Board Members:
W. Don Maughan, Chairman
Darlene Ruiz, Vice Chair
Edwin H. Finster, Member
Eliseo Samaniego, Member
Danny Walsh, Member

David N. Kennedy, Director
California Department of Water Resources

Pete Bontadelli, Director
California Department of Fish & Game

Lawrence Hancock, Director, Mid-Pacific Region
U. S. Bureau of Reclamation

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400 MISSION SQUARE
3750 UNIVERSITY AVENUE
POST OFFICE BOX 1028
RIVERSIDE, CALIFORNIA 92502
TELEPHONE (714) 686-1450
TELECOPIER (714) 686-3063
TELECOPIER (714) 682-4612

GORDON COLOGNE, OF COUNSEL
JAMES B. CORISON, OF COUNSEL
RICHARD A. OSHINS, OF COUNSEL*
STEPHEN P. DEITSCH, OF COUNSEL
* ADMITTED IN NEW YORK, NEVADA,
WASHINGTON, D. C. COURT OF CLAIMS

OFFICES IN
PALM SPRINGS (619) 325-7264
RANCHO MIRAGE (619) 566-2611
ONTARIO (714) 889-8584

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January 30, 1990

Daniel McGovern
Regional Administrator, Region 9
U.S. Environmental Protection Agency
211 Main Street, Suite 201 A
San Francisco, California 94105

Dear Mr. McGovern:

I want to express our appreciation for the thoughtful attention that our group received from you and your staff on Monday. We look forward to continuing the dialogue with your staff members on appropriate matters as the Bay-Delta process continues to develop.

Yours very truly,

Arthur L. Littleworth
Arthur L. Littleworth
of Best, Best & Krieger
Counsel for State Water
Contractors

ALL/ss

cc: Mr. Carl Boronkay
Clifford W. Schulz, Esq.
Mr. B.J. Miller
Mr. John Gaston
Mr. David Schuster
Stuart L. Somach, Esq.

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